REMARKS

Applicants have carefully reviewed and considered the Examiner's Action mailed August 5, 2003. Reconsideration is respectfully requested in view of the foregoing amendments and the comments set forth below.

By this Amendment, claims 1-10 are not amended and new claims 11 and 12 are presented. Accordingly, claims 1-12 are pending in the instant application.

Claims 1, 8 and 10 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,997,502 to Schnaars as explained in paragraph 2 of the Action. In addition, claims 1, 2, 8 and 10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over WO 98/30748 to Löngårdh et al. (hereinafter referred to as "Löngårdh") in view of U.S. Patent No. 5,044,663 to Seizert for the reasons set forth in paragraph 5 of the Action. Claims 3, 5, 6 and 7 and 9 were rejected over the above combination and further in view of Schnaars, U.S. Patent No. 4, 884,225 to Davis, U.S. Patent No. 4,496,517 to Kinoshita et al ("hereinafter referred to as "Kinoshita"), and U.S. Patent No. 6,276,712 to Welch et al (hereinafter referred to as "Welch"), respectively as described in paragraphs 6-9 of the Action. The rejections are respectfully traversed.

In another combination, the Action rejected claims 1, 4 and 10 as being unpatentable over Löngårdh in view of U.S. Patent No. 5,700,870 to Mueller et al. (hereinafter referred to as "Mueller") and Schnaars as explained in paragraph 10 spanning pages 7 and 8 of the Action. The Action additionally rejected claims 5 and 9 under 35 U.S.C. § 103(a) as being unpatentable over the above combination and further in view of Davis and Welch, respectively as described in paragraphs 11 and 12 of the Action. These rejections are respectfully traversed.

Finally, the Action rejected claims 1, 8 and 10 under 35 U.S.C. § 103 as being unpatentable over the combination of Löngårdh in view of Schnaars for the reasons set forth in paragraph 13 of the Action. Claims 2-3, 5, 6-7 and 9 were rejected as being unpatentable over the above combination and further in view of Seizert, Davis, Kinoshita and Welch, respectively, as explained in paragraphs 14-17 of the Action. These rejections are respectfully traversed.

The claimed invention relates to a method of fabricating an air-bag. As explained in the Background of the Invention of the instant application, it is conventional to provide a coating of sealant material; however, known methods of fabricating the air-bag coat the exterior of the air-bag, and then the air-bag is turned inside-out before being installed in the motor vehicle so that the coating is then on the interior of the air-bag. See the paragraphs spanning pages 1 and 2 of the instant application. This conventional method of fabricating an air-bag is not satisfactory for a side-curtain air-bag (claim 9) or an air-bag in the shape of a complex form. Consequently, known methods for fabricating a side-curtain air-bag or air-bag of complex form have been to apply the coating to the exterior of the air-bag. As explained in the paragraph at the bottom of page 2 and the paragraph at the top of page 3 of the instant application, there are several disadvantages with applying the coating to the exterior of the air-bag. It is these problems that the claimed method of fabricating an air-bag obviates or reduces.

As positively recited in independent claim 1, a method of fabricating an air-bag includes (1) forming a bag from at least one layer of fabric; (2) introducing a sealant into an interior of the bag; and (3) blowing the sealant into contact with the interior of the bag with the propellant gas so that the sealant material forms a sealant layer on the interior of the bag.

As the Office Action recognizes, Schnaars is directed to a method for forming a bag. Contrary to the Action's assertion, Schnaars does not disclose a method of fabricating an air-bag including the three steps mentioned above. In fact, Schnaars is not directed to fabricating an air-bag, but a fabric bulk bag that is used to transport dry or liquid bulk and may contain up to two tons of bulk when the bag is filled with material. This is quite different than an air-bag as known to those skilled in the art. In contrast to the claimed invention, Schnaars discloses a process for adhering a polyethylene liner to the interior of a "bulk bag" which is suitable for transporting bulk material. Simply because the bag of Schnaars is provided with a polyethylene liner does not mean that the fabricated bag would be used as an air-bag for motor vehicle safety. It is respectfully submitted that the "bulk bag" of Schnaars is very far removed from the field of air-bags, which is the item being fabricated in independent claim 1. Thus, the method of fabricating a "bulk bag" would not inherently meet the requirements of fabricating an air-bag as claimed. Accordingly, Applicants believe that independent claims 8 and 10 are not anticipated by Schnaars.

The first obviousness type rejection combines Löngårdh and Seizert to reject claims 1, 2, 8 and 10. While Löngårdh is directed to a woven fabric for air-bags in vehicles, Löngårdh does not disclose, teach or suggest the method of fabricating air-bags as claimed by Applicants. That is, Löngårdh does not disclose a method of fabricating an air-bag, but discloses the cloth "intended to be used as the material of impact-protective inflatable air-bags utilized in motor vehicles." See page 1, lines 4-6 of Löngårdh. While Löngårdh discusses how an installed air-bag is to be deployed, nowhere does Löngårdh disclose, teach or suggest the claimed steps to fabricate an air-bag. As recognized by the Action, Löngårdh is silent as to how a coating is applied on an interface of an air-bag. However, Löngårdh is

mischaracterized in the Action by stating that the coating is a sealant as described and claimed by Applicants. While Löngårdh discusses a coating on a fabric, considerable importance is placed on Löngårdh's coating having heat-reflective properties and nowhere does Löngårdh disclose, teach or suggest the step of introducing a sealant into an interior of a formed bag and blowing the sealant into contact with the interior of a bag with a propellant gas so that the sealant material forms a sealant layer on the interior of the bag as claimed by Applicants.

The secondary reference to Seizert is directed to a blow molded air-bag with fabric reinforcements. That is, the air-bag taught by Seizert is blow molded with a thermoplastic material so that fabric reinforcements are encapsulated thereon. Thus, Seizert teaches against forming a bag from at least one layer of fabric and then introducing a sealant into an interior of the bag and blowing the sealant into contact with the interior of the bag with the propellant gas so the sealant material forms a sealant layer on the interior of the bag. Contrary to a fabric bag, Seizert discloses a bag made from thermoplastic material and as such, there is no need to discuss introducing a sealant into an interior of the formed bag and blowing the sealant into contact with the interior of the bag as claimed by Applicants. The Action mischaracterizes Seizert's teachings by stating that a polymeric sealant coating is applied to the fabric to form an air-bag. On the contrary, Seizert teaches a thermoplastic air-bag which encapsulates squares of fabric reinforcements 200, 100 as shown in Fig 6 of Seizert. Thus, Seizert does not coat the fabric to form an air-bag but encapsulates the fabric with a thermoplastic material that forms an air-bag. According to the claimed invention, the air-bag is formed from at least one layer of fabric and then a sealant is introduced into an interior of the bag. Accordingly, it is submitted that even if Löngårdh was combined with Seizert, a

thermoplastic air-bag with fabric reinforcements would result and not the claimed method of fabricating an air-bag as set forth in independent claim 1. Accordingly, claims 1, 2, 8 and 10 are not rendered obvious over any combination of Löngårdh and Seizert and withdrawal of this rejection is requested.

Since Schnaars, Löngårdh, and Seizert all fail to teach a method of fabricating an air-bag where the bag is formed from at least one layer of fabric and then a sealant is introduced into an interior of the bag and the sealant is blown into contact with the interior of the bag with the propellant gas so that the sealant material forms a sealant layer on the interior of the bag, it is respectfully submitted that claim 3 cannot be rendered obvious by any combination of the above references. Accordingly, withdrawal of the rejection to claim 3 under Löngårdh, Seizert and Schnaars is respectfully requested.

Another combination of references was used to reject claims 1, 4 and 10. This is the combination of Löngårdh in view of Mueller and Schnaars. As discussed above, Löngårdh and Schnaars fail to teach a method of fabricating an air-bag which includes the steps set forth in independent claim 1. The secondary reference to Mueller is directed to coated air-bags, coating material and a coating process. Thus, while Mueller discloses coatings, Mueller does not disclose a step of forming a coating and certainly fails to disclose, teach or suggest introducing a sealant into an interior of a formed bag and blowing the sealant into contact with the interior of the bag. Mueller, like Löngårdh, is directed to material that is used to manufacture an air-bag, but Mueller does not disclose how one is to fabricate an air-bag, which is the recited purpose of independent claim 1. Accordingly, Mueller, although directed to air-bags, cannot cure the defects of Löngårdh, which is silent as to how a coating is applied to air-bag material. As argued above, Schnaars is directed to a process for adhering a

polyethylene liner to the interior of a "bulk bag" and thus, one of ordinary skill in the art would not have considered Schnaars' teachings to modify Löngårdh or Mueller. Accordingly, claims 1, 4 and 10 are not rendered obvious by any combination of Löngårdh, Mueller and Schnaars.

The Action rejected claims 1, 8 and 10 as being unpatentable over Löngårdh in view of Schnaars. Again, the Action mischaracterizes Löngårdh's teachings of the coating. Löngårdh is directed to coating a fabric that is to be used for air-bags in motor vehicles and not an interior of a formed air-bag. Löngårdh merely states "that the fabric face forming the inner face of the air-bag has a coating applied thereon" (Page 2, lines 11-13 of Longårdh) and is silent as to how the inner face achieves its coating or how the air-bag is made. As explained in the Background of the Invention, in the air-bag industry, a coating is typically applied to the exterior of the air-bag. Thus, it is submitted that Löngårdh's statement merely suggests that an inner face of an air-bag have a coating and not that an interior of a formed bag is applied with a coating as set forth in steps 2 and 3 of the claimed invention. As argued above, Schnaars would not have been considered by one of ordinary skill in the air-bag fabricating art because it is directed to a bulk bag for transporting bulk material which is very far removed from the field of *air-bags* that are a safety feature in modern motor vehicles. Consequently, one of ordinary skill in the air-bag art would not have considered a teaching directed to a bag for transporting bulk material to modify an air-bag as air-bags do not transport material but protect motorists. Accordingly, it is submitted that any combination of Löngårdh and Schnaars would not render obvious claims 1, 8 and 10 and withdrawal of that rejection is requested.

Davis is directed to a method and apparatus for protecting an occupant of a vehicle

during a collision via an inflatable confinement made of fabric to which an elastomer coating has been applied. According to Davis, the fabric is applied over a mold which is the followed by an application of an elastomer layer. Thus, Davis teaches applying an elastomer layer to the exterior of the fabric molded bag. Davis teaches that upon removal of the air-bag from the mold, the air-bag is preferably reversed such that the untreated side of the fabric is exposed as discussed in the Background of the Invention of the instant application. Thus, Davis teaches applying an elastomer coating to an exterior of a formed air-bag. Löngårdh is silent as to how the coating is applied. Seizert does not apply a coating but uses thermoplastic material to form an air-bag. As discussed above, Mueller does not disclose, teach or suggest introducing a sealant into an interior of the bag and blowing the sealant into contact with the interior of the bag as claimed by Applicants. Accordingly, Mueller cannot cure the defects of Löngårdh, Seizert, Mueller and Schnaars. Consequently, claim 5, as well as claim 1-2, 4, 8 and 10 should be allowed over any combination of the above references.

Welch is directed to a side restraint assembly for an automotive vehicle. Like Löngårdh and Mueller, Welch is silent as to how the fabric is coated with urethane or other substantially impervious material. While Welch suggests that the layer of urethane may be coated directly onto the inner surface of the air-bag, Welch does not describe a method for fabricating such an air-bag. As discussed in Applicants' Background of the Invention, side-curtain air-bags are of a complex form and cannot be readily turned inside-out. Accordingly, Welch's statement does not teach one of ordinary skill in the art how to achieve a side-curtain airbag coated with urethane or other substantially impervious material. Accordingly, Welch fails to cure the defects to Löngårdh, Seizert, Mueller and Schnaars as described above and thus, claim 9 as well as claims 1-2, 4, 8 and 10 are not rendered obvious over any

combination of the above references.

Kinoshita, like Schnaars, is directed to subject matter far removed from the claimed method of fabricating an air-bag. In particular, Kinoshita is directed to a process for preparing saturated polyester resin bottles. As the Action admits, Löngårdh, Schnaars and Seizert fail to provide a teaching of using a heated fabric bag and a heated propellant gas. Thus, it is the Action's position that one of ordinary skill in the art would have considered teachings in the art of polyester resin bottles to modify a method of fabricating an air-bag. It is respectfully submitted that one of ordinary skill in the air-bag art would not have considered polyester resin bottles to modify a method of fabricating a fabric air-bag as claimed by Applicants. Nowhere does Kinoshita disclose, teach or suggest heating a formed fabric air-bag before sealant is blown into contact with the interior of the bag as required by dependent claim 6. It is noted that fabric and saturated polyester resin bottles are two technically different subjects. Thus, while a mold may be heated to a temperature of 100° - 130° C, one of ordinary skill in the art would not have considered heating a fabric to such a high temperature as taught by Kinoshita. Accordingly, it is submitted that dependent claim 6 cannot be rendered obvious by Kinoshita.

Similarly, claim 7 which recites that the propellant gas is heated cannot be rendered obvious by Kinoshita. In particular, Kinoshita teaches an extremely high temperature of compressed air in the range of 200° C. It is respectfully submitted that one of ordinary skill in the art would not have considered such a high temperature propellant gas as taught by Kinoshita when manufacturing a fabric air-bag. Accordingly, claim 7 cannot be rendered obvious by Kinoshita.

New claims 11 and 12 contain the features of dependent claims 6 and 7 respectively.

Accordingly it is believed that new claims 11 and 12 are patentable over any combination of the art of record.

In view of the above, it is respectfully submitted that independent claims 1, 11 and 12, as well as their depending claims, 2-10 are patentable over the art of record. Reconsideration and allowance of the instant application is respectfully requested.

If the Examiner believes that a conference would help to advance the prosecution of the instant application, he is encouraged to telephone the undersigned at the number below.

Respectfully submitted,

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